



STORM EVENTS

Volume 1, Issue 2

ITD Quarterly Storm Water Newsletter

Winter 2006

Promoting Responsible Storm Water Management Practices throughout the Idaho Transportation Department

Pocatello NPDES Approved

Pocatello, Idaho -- Starting December 15, 2006, the City of Pocatello and its co-permittees (City of Chubbuck, Bannock County, and ITD) are authorized to discharge under an NPDES Municipal Separate Storm Water System (MS4) Permit. This permit requires that co-permittees develop and implement a Storm Water Management Program (SWMP) that includes comprehensive plans and approaches to manage storm water quality discharged from the co-permittees' MS4. This comprehensive plan includes the development, implementation, and enforcement of a SWMP designed to reduce the discharge of pollutants from the MS4 to the maximum extent practicable and to protect water quality in receiving waters. The SWMP actions and activities include Best Management Practices (BMPs), system design, engineering methods, and other provisions appropriate to control discharges of pollutants from the MS4.

This permit requires that the co-permittees manage storm water within the permit area, incorporating concepts and approaches described and defined in the Portneuf River TMDL Implementation Plan (dated July 2003).

As a co-permittee, ITD is required to meet specific minimum control measures as highlighted in Part II.B of the permit. Typically, these control measures are divided amongst the other co-permittees with the main permittee retaining the majority of responsibilities. The actual permit can be viewed at:

<http://yosemite.epa.gov/r10/WATER.NSF/NPDES+Permits/New824>

Why Inspect During the Winter Shutdown?

The adjacent images were taken within the last month. They depict silt fence around a storm drain that were acting as sediment control devices. They were virtually destroyed after a snow plow cleared the road. Since Idaho uses cinder to increase traction in snowy conditions, it is doubly important that these sediment control devices be repaired prior to the snow melting and depositing significant sediment loads to the storm drains.



Test Your Storm Water Management I.Q.:

1. Who is responsible for signing the NOI and NOT for ITD?
2. If ITD rejects the recommendations of the Third Party Consultant as infeasible, per the Consent Decree what is the Resident Engineer required to do?
3. True or False: The Contractor's Water Pollution Control Manager (WPCM) must maintain a certificate of completion for the WPCM Course as certified by ITD?
4. For projects requiring Third Party storm water inspections, how often do these inspections occur per the Consent Decree?

What Constitutes Final Site Stabilization?

A question came up recently regarding how to determine when a site is finally stabilized.

The correct approach is for sufficient vegetative growth to occur so that the RE is confident in the establishment of the vegetation. Simply applying the "tack and seed" does not provide stabilization nor ensure a uniform vegetative cover, as all that would be seen is essentially bare soil. In addition, the applied seed could be inert or the application rate (seed weight per acre) may have been too sparse to guarantee good growth when vegetation did become apparent. An RE would not know the success of the application until full germination occurred, but would still need to wait for vegetation to grow and establish itself. Final stabilization is met by achieving 70% of background vegetation through either re-vegetation or equivalent mechanical means. It's this "mechanical means" that may be causing the confusion. "Equivalent mechanical means" could be a geotextile overlaying a soil surface that has been afforded "tack and seed." However, germination and growth still needs to be confirmed, i.e., just tack and seed is not acceptable final stabilization.

It should be noted that such measures as "straw and tack" with a seed base is a temporary BMP, but even with the straw acting as a protective coating, an RE would wait to observe a level of germination that made them confident that the site would be stabilized before removing the temporary controls and submitting the Notice of Termination (NOT). It is also recommended that the RE obtain the concurrence of Maintenance staff before accepting a site and filing an NOT when vegetative practices are not fully established, as acceptance of the site can be done with another operator (i.e. Maintenance) taking control. Photo-documentation of the site prior to beginning construction activities is also recommended so that agreement of the 70% of background criteria is understood and compared to the final stabilization, especially when it can become disputable with the Contractor or even EPA.



BMP 3.2 Check Dams

Channels or ditches that are constructed parallel to the roadway or other areas provide surface drainage (runoff) from the road surface and adjacent areas. A properly designed, constructed, and maintained channel or ditch, will keep runoff from damaging the road system. Channel erosion can be prevented through the use of check dams and geosynthetic channel liners. Proper installation and maintenance of temporary check dams and channel liners will reduce or prevent excessive bank and bottom erosion by reducing the velocity of storm water runoff. By reducing the velocity of storm water runoff, check dams in conjunction with sediment basins, and are usually able to capture a large percentage of the sediments suspended in the water.

Temporary check dams are constructed or installed to reduce the velocity of storm water runoff. The check dam either filters the water for sediment as it passes through the dam, or ponds up the water in sediment basins, allowing the sediment to settle while the water flows over the dam. There are limited products or technologies available to construct an effective temporary check dam or channel liners, with the following practices being used. Types of Check Dams include:

- Fiber Wattle, Rock, Straw Bale, Sand Bag, Log, Channel Liners

Limitations:

- Temporary check dams are for temporary use only. In some instances, the temporary check dam should be removed after the purpose is served, unless directed otherwise, or when a permanent BMP is in place.
- Check dams or channel liners should never be used in live streams unless approved by the appropriate state and federal authorities.
- Poor installation and maintenance are often the cause of ineffective or poor results using check dams and channel liners.

For detailed information please refer to ITD's Erosion and Sediment Control Manual, ITD Standard Specification 212, and ITD Standard Drawings P-1-D, P-2-B, and P-2-C

ITD STORM WATER FREQUENTLY ASKED QUESTIONS (FAQs)

Q1: If our construction site has less than 1 acre of disturbed soil, what are our storm water management requirements?

A1: ITD is still required to ensure the site is in compliance with the Clean Water Act. While a formal SWPPP is not required per the CGP, management of storm water is required to the extent that the site is not contributing pollution to water bodies of the state.

Q2: How do we stabilize an unfinished slope covered with a minor snowfall (2-3 inches) in a non-winter shutdown county?

A2: While BMPs such as fiber wattle along the slope would likely work, they can be very difficult to install in such conditions. The most applicable BMP would be to prepare for the snow melt by ensuring downstream sediment controls are in place. Such measures as silt fence, fiber wattles, check dams, etc. should be in place per the ITD Erosion and Sediment Control Manual. Avoid placing hydroseed and/or tackifier on the snow as these BMPs would simply be washed away once the snow melts.

Q3: Is the Third Party Consultant conducting inspections per the Consent Decree available to provide advice on storm water management strategies?

A3: Absolutely. The primary goal of third party inspections is to assist all NOI holders in being compliant with the Clean Water Act. To achieve this, the Third Party Consultant is available to provide advice on the best ways for ITD to manage storm water.

Q4: Regarding the new ITD Form 2802, please define a discharge point from the site.

A4: A discharge point from the site is an area or point where any water (storm water, irrigation water, water from concrete washouts, etc.) leaves the project and has the potential to affect water quality by entering waters of the United States. Prior to any discharge points, ITD project personnel should take all the necessary steps to either divert flows from entering the site or mitigate flows entering the site by using proper erosion and sediment controls as required to comply with the Clean Water Act.

Quiz Answers:

1. The District Engineer or the Assistant District Engineer so designated by the District Engineer in writing and approved by EPA. (See CGP Appendix G, Section 11.B)

ITD shall place in its files on the jobsite a written description by the Resident Engineer on why the recommendation(s) was not followed. (See Consent Decree Para. II.B.9)

2. True. The only ITD certified WPCM course currently being offered is through the Idaho AGC. (See Consent Decree Para. II.A.5)

4. At least once every 30 days. If significant deficiencies are found, a follow-up inspection will occur within 14 days. (See Consent Decree Para. II.B.9)